

Appln. No.: 10/776,541
Filed: February 10, 2004
Amendment dated October 10, 2010
Reply to Office action mailed June 10, 2010

REMARKS

Claims 10-36 are pending in the Application and all were rejected in the Office action mailed June 10, 2010. No claims are amended by this response. Claims 10 and 24 are independent claims, while claims 11-23 and 25-36 depend either directly or indirectly from independent claims 10 and 24, respectively. Applicants respectfully request reconsideration of claims 10-36, in light of the following remarks.

Applicants again respectfully note that the Office previously cited Bruck (US 6,519,289) in the Office actions mailed April 10, 2008, October 16, 2008, and June 30, 2009, and again in the instant Office action, but that Bruck still does not appear on any PTO-892 form of record. This request has been made multiple times, but the Office continues to ignore Applicants' request to make the record complete, as required by 37 C.F.R. §1.104 and M.P.E.P. §707.07. Applicants again respectfully request that Bruck be made of record in the Application by its appearance on a USPTO Form PTO-892, or that the Examiner explain why this request is being ignored.

The Applicants note that a goal of patent examination is to provide a prompt and complete examination of a patent application.

It is essential that patent applicants obtain a prompt yet complete examination of their applications. Under the principles of compact prosecution, **each claim should be reviewed for compliance with every statutory requirement for patentability in the initial review of the application,** even if one or more claims are found to be deficient with respect to some statutory requirement. Thus, **USPTO personnel should state all reasons and bases for rejecting claims in the first Office action.** Deficiencies should be explained clearly, particularly when they serve as a basis for a rejection. Whenever practicable, USPTO personnel should indicate how rejections may be overcome and how problems may be resolved. **A failure to follow this approach can lead to unnecessary delays in the prosecution of the application.**

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M.P.E.P. §2106(II) (emphasis added).

As such, the Applicants assume, based on the goals of patent examination noted above, that the current Office Action sets forth “all reasons and bases” for rejecting the claims.

Applicants respectfully note that no claims are amended by this response. Thus, this response does not raise issues that would necessitate a new search.

Rejection of Claims

Claims 10-20 and 24-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Adolph, *et al.* (US 5,825,430, hereinafter “Adolph”) in view of Hinchley, *et al.* (US 6,490,250, hereinafter “Hinchley”). Claims 21-22 and 34-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Adolph and Hinchley, in further view of Ishihara, *et al.* (US 6,516,031, hereinafter “Ishihara”). Claims 23 and 36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Adolph, Hinchley, and Ishihara, and further in view of Kopet, *et al.* (US 5,448,310, hereinafter “Kopet”).

The Office also rejects claims 10-12, 15-16, 20, 24-25, 28-29, and 33 under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy, *et al.* (US 6,665,872, hereinafter “Krishnamurthy”) in view of Adolph. Claims 13 and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy and Adolph, in further view of Bruck (US 6,519,289). Claims 14, 17-19, 27, and 30-32 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy and Adolph, in further view of Hinchley. Claims 21-22 and 34-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy and Adolph, in further view of Boice, *et al.* (US 6,823,013, hereinafter “Boice”). Claims 21-22 and 34-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy and Adolph, in further view of Kopet.

Applicants note that all claims are rejected for alleged reasons of obviousness. Applicants first review requirements for a rejection based on obviousness. According to M.P.E.P. §2142, “[t]he examiner bears the initial burden of factually supporting any

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prima facie conclusion of obviousness. If the examiner does not produce a *prima facie* case, the applicant is under no obligation to submit evidence of nonobviousness.” M.P.E.P. §2142 further states that “[t]he key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious.” As recognized in M.P.E.P. §2142, “[t]he Supreme Court in *KSR International Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), 82 USPQ2d 1385, 1396 noted that the analysis supporting a rejection under 35 U.S.C. 103 should be made explicit.” In addition, the Federal Circuit has made clear that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). See also *KSR*, 127 S. Ct. 1727 (2007), 82 USPQ2d at 1396.

In addition, as noted in the Manual of Patent Examining Procedure (Revision 7, July 2008), “[t]o establish *prima facie* obviousness of a claimed invention, **all the claim limitations** must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974).” (emphasis added) See MPEP at 2143.03. Further, “[**all words in a claim** must be considered in judging the patentability of that claim against the prior art.’ *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA).” (emphasis added) See *id.*

Thus, the law is clear that words of a claim cannot be merely disregarded during examination in an effort to assert a quick and easy rejection. Instead, all the words in a claim must be considered during the examination process.

Applicants respectfully traverse the rejections for at least the reasons set forth during prior prosecution, in addition to those set forth below.

I. The Proposed Combination Of Adolph And Hinchley Does Not Render Claims 10-20 And 24-33 Unpatentable

Claims 10-20 and 24-33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Adolph in view of Hinchley. Applicants respectfully traverse the

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rejection, and submit that the cited art fails to render Applicants' claims 10-20 and 24-33 unpatentable for a number of reasons.

With regard to independent claim 10, Applicants begin by respectfully noting that the Office identifies the entirety of FIG. 3 of Adolph as teaching Applicants' claimed "audio/video encoder device," and the portion of FIG. 3 labeled "EMUX" as teaching Applicants' claimed "multiplexer circuitry." Adolph identifies FIG. 3 as "a transmitter for the transmission according to the invention." See *id.* at col. 3, line 8-9. The Office interprets the "performing of MMUX" of FIG. 3 of Adolph as teaching Applicants' "first mode," and the "performing of MUX 1 and MUX 2" of FIG. 3 of Adolph as teaching Applicants' "second mode." See Office action at page 2. The Office then relies on that interpretation of Adolph, in asserting that cited aspects of only Adolph disclose Applicants' claimed "single-chip audio/video encoder device comprising, on a single integrated circuit: multiplexer circuitry that operates in a first mode and a second mode, which when operating in the first mode produces a first multiplexed stream from first compressed video, first compressed audio, second compressed video, and second compressed audio." *Id.* Applicants respectfully disagree, and submit that the Office is misinterpreting the teachings of Adolph.

Applicants respectfully submit that the Office is inconsistent in its identification of the aspect of Adolph that teaches Applicants' claimed "first multiplexed stream." At one point in the rejection of claim 10, the Office asserts that the output of "MUX 1" of Adolph teaches Applicants' "first multiplexed stream" and the output of "MUX 2" of Adolph teaches Applicants' "second multiplexed stream," produced by Applicants' claimed "multiplexing circuitry" when operating in Applicants' "second mode." See Office action at page 2. However, at another point in the same rejection, the Office asserts, instead, that the output of "MMUX" of Adolph teaches Applicants' "first multiplexed stream," produced when operating in Applicants' claimed "first mode." *Id.* Thus, the Office has asserted that two different elements of Adolph that produce two different output signals (i.e., the output of "MUX 1" and the output of "MMUX") both teach producing Applicants' "first multiplexed stream." Applicants respectfully submit that the "programme data

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stream” output by “MUX 1” of Adolph cannot teach Applicants’ claimed “first multiplexed stream,” in that the “MUX 1” does not have as inputs the “first compressed video,” “second compressed video,” “first compressed audio,” and “second compressed audio,” required by claim 10 “when operating in the first mode.” Applicants respectfully submit that the Office appears to be changing the element identified as teaching the claimed “first multiplexed stream” in the cited art to suit its needs, without explanation, and that such inconsistent interpretation of the Adolph cannot provide the support **required** by M.P.E.P. §2142 for a *prima facie* case of obviousness. Therefore, Applicants respectfully submit that Adolph fails to teach, suggest, or disclose Applicants’ claimed “multiplexer circuitry” producing a “first multiplex stream” as in the Applicants’ claimed “first mode” and “second mode,” for at least this reason alone. Because the Office did not identify any support from Hinchley supporting the rejection of these aspects of claim 10, and Applicants have demonstrated that the cited aspects of Adolph do not teach at least these aspects of claim 10, it necessarily follows that the propose combination of Adolph and Hinchley cannot teach at least these aspects of claim 10, that the cited art fails to meet the requirements of M.P.E.P. §2142 for a *prima facie* case of obviousness, and that claim 10 is allowable for at least this reason. Applicants respectfully submit that claim 10 is allowable for at least an additional reason.

The Office asserts that Adolph teaches “wherein the device transmits the first multiplexed stream to circuitry external to the device via a first output of the device” and “wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device.” Applicants’ respectfully submit that claim 10 recites separate and distinct elements “first output of the device” and “second output of the device.” The Office has identified the “first multiplexed stream” and the “second multiplexed stream” as being produced by “MUX 1” and “MUX 2,” respectively. See Office action at page 2. That is, Applicants’ two streams are asserted to be taught by the two outputs of the “MUX 1” and “MUX 2” of FIG. 3, respectively. Applicants respectfully note, however, that the Office has not shown where Adolph teaches that the outputs of “MUX 1” and “MUX 2” of the transmitter of FIG. 3 of Adolph are transmitted to

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circuitry external to the device via the claimed “first output of the device” and “second output of the service,” respectively, in accordance with claim 10. Instead, the Office identifies “MOD” and “BBRF” of FIG. 3 of Adolph as teaching both of Applicants’ claimed “first output of the device” and “second output of the device.” See Office action at page 3. Adolph describes the “transport data stream” processed by the “encoder unit MOD” and “modulator BBRF” as being “combined in a transport multiplexer MMUX,” therefore Applicants respectfully submit that the “transport data stream” of Adolph is a single data stream output by the “transmitter” of FIG. 3. The Office fails to explain how the same “MOD” and “BBRF” elements that process a single data stream teach transmission of the two streams, namely Applicants’ claimed “first multiplexed stream” and “second multiplexed stream”, via the claimed “first output” and “second output,” as required by claim 10. The Office does not provide the “explicit analysis” required by M.P.E.P. §2142 to explain how Adolph is being interpreted to teach what is asserted. In addition, the Office does not identify relevant teachings in Hinchley that support the rejection of at least these aspects of claim 10.

Therefore, for at least the reasons set forth above, Applicants respectfully submit that the Office has not demonstrated that Adolph teaches “wherein the device transmits the first multiplexed stream to circuitry external to the device via a first output of the device” and “wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device.” Further, the Office does not assert that Hinchley teaches at least these features of claim 10. Applicants respectfully submit, therefore, that the cited combination of art cannot, by definition, teach at least these aspects of claim 10, and that claim 10, and any claims that depend therefrom, are allowable over the cited art for at least the above reasons. Applicants respectfully submit that claim 10 is allowable over the cited art for at least an additional reason.

Applicants appreciate recognition by the Office that Adolph does not teach “a single chip comprises the multiplexer, encoders, and control circuitry that synchronizes the multiplexer circuitry, the first encoder, and the second encoder as claimed.” See

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Office action at page 3. However, the Office action then asserts the following, at page 3:

Hinchley teaches a single chip (120 of fig. 1) comprises the multiplexer (204 of fig. 2), encoders (208 of fig. 2), and control circuitry (250 of fig. 2) that synchronizes the multiplexing circuitry, the first encoder, and the second encoder (212, 214, 216, 218, and 220 of fig. 2).

This portion of the rejection of claim 10 amounts to no more than a conclusory statement, in that the Office fails to provide the “explicit analysis” required by M.P.E.P. §2142 to explain why the cited art is interpreted in this way. The Office fails to cite any text from Hinchley to support the statement. The Office has previously made the assertion that “control circuitry 250” of FIG. 2 of Hinchley synchronizes the “multiplexing circuitry, the first encoder, and the second encoder.” See Office action of October 16, 2008 at page 4. Applicants responded April 16, 2009 to the Office action of October 16, 2008 by demonstrating that the Office had not established a *prima facie* case of obviousness and that the Office had not identified any portion of Hinchley that teaches or suggests that “multimedia processor 250” synchronizes anything. Applicants will not repeat the entirety of Applicants’ arguments, but hereby incorporate Applicants’ prior response herein as though set forth in full. See Response filed April 16, 2009 at page 15-16.

Applicants respectfully submit that Hinchley merely teaches that the “multimedia engine 250” adjusts a “data rate” of only an encoder, but says nothing about “synchronization.” *Id.* at FIGs. 7, 8, 9, and 10, and col. 6, line 13 to col. 8, line 44. Indeed, Hinchley fails to make any mention of “synchronization” of anything in its entirety, let alone of the elements and the manner claimed. Applicants respectfully submit that adjusting a “data rate” is quite different from “synchronization,” as claimed. Applicants respectfully submit that such conclusory statements are insufficient to support a *prima facie* case of obviousness. See M.P.E.P. §2142.

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Applicants respectfully note that “If the examiner is able to render a claim obvious simply by saying it is so, neither the Board nor [the Federal Circuit] is capable of reviewing that determination. ... If there is **neither record evidence nor detailed examiner reasoning**, the Board should not conclude that ... claims are obvious.” See *In re Vaidyanathan*, Appeal 2009-1404 at pages 18-19 (Fed. Cir. May 19, 2010) (nonprecedential) (emphasis added).

“[W]hile *KSR* relaxed some of the formalism of earlier decisions requiring a ‘teaching, suggestion, or motivation’ to combine prior art references, it did not remove the need to anchor the analysis in explanation of how a person of ordinary skill would select and apply the teachings of the references.” See *id.* at page 17. Moreover,

KSR did not free the PTO’s examination process from explaining its reasoning. In making an obviousness rejection, the examiner **should not rely on conclusory statements** that a particular feature of the invention would have been obvious or is well known. Instead, the examiner should elaborate, discussing the evidence or reasoning that leads the examiner to such a conclusion. **Generally, the examiner cites prior art references to demonstrate the state of knowledge.**

Id. (emphasis added).

“[T]he Board **cannot** simply reach conclusions based on its own understanding or experience – **or on its assessment of what would be basic knowledge or common sense**. Rather, the Board must point to some concrete evidence in the record in support of these findings.” See *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (emphasis added).

Because the Office admits that Adolph does not teach this aspect of claim 10, and Applicants have demonstrated that Hinchley also does not teach at least this aspect of claim 10, it necessarily follows that the proposed combination of references cannot teach at least this aspect of claim 10, that a *prima facie* case of obviousness has not been established, and that claim 10, and any claims that depend therefrom, are allowable over the cited art for at least this additional reason.

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Therefore, based at least upon the above, Applicants respectfully submit that the Office has not shown that the cited art teaches all aspects of Applicants' claim 10, that the Office has not established a *prima facie* case of obviousness, and that claim 10 is allowable over the cited art. Because claims 11-23 depend from claim 10, Applicants respectfully submit that they too are allowable over the proposed combination of Adolph and Hinchley.

With regard to independent claim 24, Applicants respectfully submit that claim 24 was rejected over the same art using the same rationale as claim 10, and that claim 24 and its dependent claims are allowable over the proposed combination of Adolph and Hinchley for at least some of the reasons set forth above.

Accordingly, Applicants respectfully request that the rejection of claims 10-20 and 24-33 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

II. The Proposed Combination Of Adolph, Hinchley, And Ishihara Does Not Render Claims 21, 22, 34, and 35 Unpatentable

Claims 21-22 and 34-35 were rejected under 35 U.S.C. 103(a) as being unpatentable over Adolph and Hinchley, in further view of Ishihara. Applicants respectfully traverse the rejection. Claims 21 and 22, and claims 34 and 35 depend, respectively, from independent claims 10 and 24. Applicants respectfully submit that claims 10 and 24 are allowable over the cited art, in that the Office has not shown that Ishihara overcomes the shortcomings of Adolph and Hinchley, set forth above. Because claims 10 and 24 are allowable over the proposed combination of references, Applicants respectfully submit that claims 21, 22, 34, and 35 are also allowable over the cited art as well. Accordingly, Applicants respectfully request that the rejection of claims 21, 22, 34, and 35 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

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III. The Proposed Combination Of Adolph, Hinchley, Ishihara, And Kopet Does Not Render Claims 23 And 36 Unpatentable

Claims 23 and 36 were rejected under 35 U.S.C. 103(a) as being unpatentable over Adolph, Hinchley, and Ishihara, and further in view of Kopet. Applicants respectfully traverse the rejection. Claims 23 and 36 depend, respectively, from independent claims 10 and 24. Applicants respectfully submit that claims 10 and 24 are allowable over the cited art, in that the Office has not shown that Ishihara and Kopet, taken alone or together, overcome the shortcomings of Adolph and Hinchley, set forth above. Because claims 10 and 24 are allowable over the proposed combination of references, Applicants respectfully submit that claims 21, 22, 34, and 35 that depend therefrom are allowable over the cited art as well. Accordingly, Applicants respectfully request that the rejection of claims 23 and 36 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

IV. The Proposed Combination Of Krishnamurthy And Adolph Does Not Render Claims 10-12, 15-16, 20, 24-25, 28-29, And 33 Unpatentable

Claims 10-12, 15-16, 20, 24-25, 28-29, and 33 were rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy, *et al.* (US 6,665,872, hereinafter "Krishnamurthy") in view of Adolph. Applicants respectfully traverse the rejection because the proposed combination of Krishnamurthy and Adolph do not teach, suggest, or disclose all aspects of Applicants' claims, for at least the reasons that follow.

Applicants again respectfully submit that, according to Krishnamurthy at col. 1, lines 15-19, Krishnamurthy "...relates to the compression and transmission of video signals, and, in particular, to the compression and transmission of multiple compressed video streams over a **single**, shared communication channel." (emphasis added)

With regard to independent claim 10, Applicants respectfully submit that claim 10 recites, in part, "...[a] single-chip audio/video encoder device comprising, on a single integrated circuit: multiplexer circuitry that operates in a first mode and a second mode, which when operating in the first mode produces a first multiplexed stream from first

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compressed video, first compressed audio, second compressed video, and second compressed audio; and which when operating in the second mode concurrently produces the first multiplexed stream from the first compressed video and the first compressed audio, and produces a second multiplexed stream from the second compressed video and the second compressed audio....” Applicants respectfully submit that the cited art does not teach, suggest, or disclose all of the aspects of Applicants’ claim 10 recited above.

As can be seen above, Applicants’ claimed “first mode” and “second mode” characterize operation of Applicants’ claimed “multiplexer circuitry,” in which in the claimed “first mode,” the “multiplexer circuitry” produces a “first multiplexed stream” using four components, namely, “first compressed video,” “first compressed audio,” “second compressed video,” and second compressed audio.” In the claimed “second mode,” however, the claimed “multiplexer circuitry” produces the “first video stream” using the two components “first compressed video” and “second compressed video,” and produces, in addition, a “second multiplexed stream” using the two components “second compressed video” and “second compressed audio.” Thus, the “first mode” and “second mode” define the video and audio content of the “first multiplexed stream” and the “second multiplexed stream.”

The Office rejects Applicants’ claimed “multiplexer circuitry” at page 8 of the Office action stating, in part, “Re claims 10 and 24, Krishnamurthy teaches ... multiplexer circuitry (308 of fig. 3) that operates in a first mode and a second mode (col. 20, lines 22-25, “multi-channel mode” would obviously suggest a first mode and a second mode)....” Thus, the Office asserts that col. 20, lines 22-25 of Krishnamurthy alone teach Applicants’ claimed “first mode” and “second mode.” Applicants respectfully disagree, and now address the cited portion of Krishnamurthy, reproduced below, underlined in context:

Each SSI serial input port 336 has three wires carrying a clock signal (sclk), a data signal (sdat), and a frame signal. All 24 clock signals sclk should be configured

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as the input clock signals and connected to an on-board 27-MHz clock oscillator 504. 27-MHz clock 504 will also be used as the DSP clock, and on-chip PLL circuits will generate a 90-MHz DSP clock. In that case, on-chip timers can be used for the PCR time-base corrections. The frame signals will indicate whether or not the data signal *sd*at carries meaningful data. The data signals *sd*at are burst with a maximum rate of 27 Mbps. The frame signals can also be programmed in a "multi-channel mode" to send multiple packets into assigned on-chip buffers for transmitting the individual encoders' statistical parameters.

(emphasis added)

The cited portion of Krishnamurthy shown above teaches that "frame signals," which "will indicate whether or not the data signal *dat* carries meaningful data" can be programmed in "multi-channel mode," to "send multiple packets into assigned on chip buffers for transmitting the individual encoders' statistical parameters." Thus, Krishnamurthy clearly teaches that the disclosed "multi-channel mode" relates not to operating modes that define video and audio content of multiplexed streams, but instead to transmission of **statistical parameters** of encoders. Applicants respectfully submit that the Office relies only upon Krishnamurthy as teaching this aspect of Applicants' claim 10, and does not assert that Adolph provides support for these aspects of Applicants claimed "first mode" **and** "second mode." Therefore, Applicants respectfully submit that the Office has not shown that the proposed combination of Krishnamurthy and Adolph teaches, suggests, or discloses at least this aspect of Applicants claim 10, and that claim 10, and any claims that depend therefrom, are allowable over the cited art for at least this reason. Applicants respectfully submit that claim 10 is allowable over the cited art for at least an additional reason.

Applicants' claim 10 also recites, in part, "...wherein the device transmits the first multiplexed stream to circuitry external to the device via a first output of the device," **and** "...wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device." The Office action rejects this aspect of claim 10 at pages 8-9 that states, in part:

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Re claims 10 and 24, Krishnamurthy teaches ... wherein the device (fig. 3, see also fig. 5) transmits the first multiplexed stream to circuitry external (506 of fig. 5, col. 20, lines 27-28) to the device via a first output of the device; and wherein the device (fig. 5) transmits the second multiplexed stream to circuitry external (506 of fig. 5; col. 20, lines 27-28) to the device via a second output of the device.

Applicants respectfully submit that the Office asserts that FIG. 3 and FIG. 5 of Krishnamurthy teach Applicants' claimed "single-chip audio/video encoder device." *Id.* at page 8, lines 1-3. Krishnamurthy describes FIG. 3 as a "system-level block diagram of computer system, according to one embodiment of the present invention," and FIG. 5 as "a board-level block diagram of the statistical multiplexing board of the computer system of FIG. 3." *See id.* at col. 4, lines 9-15. Applicants respectfully submit, however, that the Office identifies a single element 506 of FIG. 5 (which Krishnamurthy teaches corresponds to element 308 of FIG. 3) as teaching **both** of Applicants' claim features "wherein the device transmits the first multiplexed stream to circuitry external to the device via a first output of the device," and "wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device."

Applicants respectfully submit that claim 10 recites first and second outputs of the device. FIG. 5 of Krishnamurthy, however, does not disclose element 506 as having two outputs, nor does the Office demonstrate where Krishnamurthy teaches, suggests, or discloses two of element 506 acting as outputs of the "stat mux board" of FIG. 5, nor does the Office show that Krishnamurthy teaches, suggests, or discloses that the "computer system" of FIG. 3 includes more than one "stat-mux board 308." Applicants respectfully submit that the presence of a single element 506 [308] in the "stat mux board" of Krishnamurthy is consistent with the clear statement by Krishnamurthy at col. 1, lines 15-19 that the Krishnamurthy reference "...relates to the compression and transmission of video signals, and, in particular, to the compression and transmission of

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multiple compressed video streams over a **single**, shared communication channel.” Therefore, Applicants respectfully submit that the disclosure of Krishnamurthy consistently does not teach, suggest, or disclose a “second multiplexed stream” transmitted via a “second output,” and therefore does not teach, suggest, or disclose at least Applicants’ claim feature “wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device,” as claimed. The Office seemingly recognizes this at page 9 of the Office action, which states, in part:

Krishnamurthy does not particularly teach when operating in the second mode concurrently produces the first multiplexed stream from the first compressed video and the first compressed audio, and produces a second multiplexed stream from the second compressed video and the second compressed audio as claimed.

The Office, however, then mistakenly relies upon Adolph, stating the following at page 9:

Adolph teaches which when operating in the second mode (MUX1 of fig. 3) concurrently produces the first multiplexed stream (the output of MUX 1) from the first compressed video (VE1 of fig. 3) and the first compressed audio (AE1 of fig. 3), and produces a second multiplexed stream (MUX2 of fig. 3, the output of MUX2) from the second compressed video (VE2 of fig. 3) and the second compressed audio (AE2 of fig. 3).

Here, the Office asserts that Adolph teaches producing Applicants’ claimed “first multiplexed stream” and “second multiplexed stream.” Applicants respectfully submit, however, that Adolph does not teach, suggest, or disclose that the “transmitter” of FIG. 3 of Adolph transmits the output of “MUX 1” to circuitry external to the “transmitter” via a first output of the “transmitter” **and** transmits the output of “MUX2” to circuitry external to the “transmitter” via a second output of the “transmitter,” in accordance with Applicants’ claim 10. It is quite clear from even a cursory review of FIG. 3 of Adolph that the

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outputs of “MUX 1” and “MUX 2” of the “transmitter” pass to element “MMUX” that produces a single output passed to element “SP”, which eventually exits from the “transmitter” as a single output “BBRF.” Thus, Adolph does not teach, suggest, or disclose at least Applicants’ claim features “...wherein the device transmits the first multiplexed stream to circuitry external to the device via a first output of the device,” **and** “...wherein the device transmits the second multiplexed stream to circuitry external to the device via a second output of the device.” Applicants therefore respectfully submit that Adolph does not remedy the shortcomings of Krishnamurthy discussed above with regards to at least this aspect of Applicants’ claim 10, that the proposed combination of Krishnamurthy and Adolph does not teach, suggest, or disclose at least this aspect of claim 10, and that claim 10, and any claims that depend therefrom, are allowable over the cited art for at least this reason. Applicants believe that claim 10 is allowable over the cited art for at least an additional reason.

Applicants respectfully submit that claim 10 also recites, in part, “...control circuitry that synchronizes the multiplexing circuitry, the first encoder, and the second encoder....” The Office action rejects this aspect of claim 10 at page 8 stating, in part, “control circuitry (304 of fig. 3, note the CPU (304) is programmable to control all elements, so the CPU would obviously synchronize all element as described in figure 3) that synchronizes the multiplexing circuitry, the first encoder, and the second encoder.” The Office has previously asserted this rejection over only Krishnamurthy, which Applicants have addressed at length, and will not repeat those arguments and Applicants’ rebuttals to the responses of the Office again here, but hereby incorporate those prior argument herein as though set forth in full. See Office action of October 16, 2008 at page 9, Applicants’ response filed April 16, 2009 at page 29-35; Pre-Appeal Brief Request for Review filed December 30, 2009 at page 4.

This repeated rejection once again cites only to element 304 of FIG. 3 of Krishnamurthy, and fails to identify any support in the text of Krishnamurthy for the conclusory statement that “the CPU would obviously synchronize all element as described in figure 3) that synchronizes the multiplexing circuitry, the first encoder, and

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the second encoder.” Applicants have previously shown that conclusory statement is simply not true. See response filed April 16, 2009 at pages 29-35. Applicants respectfully submit that M.P.E.P. §2142 clearly recognizes that conclusory statements are not sufficient to support a rejection under 35 U.S.C. §103, “the Federal Circuit has made clear that “rejections on obviousness cannot be sustained with mere conclusory statements; instead, there **must** be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.”

In addition, as the Federal Circuit recently noted, “[i]f the examiner is able to render a claim obvious simply by saying it is so, neither the Board nor [the Federal Circuit] is capable of reviewing that determination. ... If there is neither record evidence nor detailed examiner reasoning, the Board should not conclude that ... claims are obvious.” See *In re Vaidyanathan*, Appeal 2009-1404 at pages 18-19 (Fed. Cir. May 19, 2010) (nonprecedential). (emphasis added)

Further, “[W]hile *KSR* relaxed some of the formalism of earlier decisions requiring a ‘teaching, suggestion, or motivation’ to combine prior art references, it did not remove the need to anchor the analysis in explanation of how a person of ordinary skill would select and apply the teachings of the references.” (emphasis added) See *id.* at page 17.

Moreover,

KSR did not free the PTO’s examination process from explaining its reasoning. In making an obviousness rejection, the examiner **should not rely on conclusory statements** that a particular feature of the invention would have been obvious or is well known. Instead, the examiner should elaborate, discussing the evidence or reasoning that leads the examiner to such a conclusion. Generally, **the examiner cites prior art references to demonstrate the state of knowledge**.

Id. (emphasis added).

“[T]he Board cannot simply reach conclusions based on its own understanding or experience – or on its assessment of what would be basic knowledge or common

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sense. Rather, the Board must point to some **concrete evidence in the record** in support of these findings.” See *In re Zurko*, 258 F.3d 1379, 1386 (Fed. Cir. 2001) (emphasis added).

Therefore, Applicants respectfully submit that the Office, citing only an isolated element in a figure of Krishnamurthy, without supporting text or any interpretation, and without the “explicit analysis” required by M.P.E.P. §2142, has not established a *prima facie* case of obviousness with respect to Applicants’ feature “...control circuitry that synchronizes the multiplexing circuitry, the first encoder, and the second encoder...” The Office has also not identified any relevant support in Adolph. Applicants therefore respectfully submit that the proposed combination of Krishnamurthy and Adolph does not teach, suggest, or disclose at least this aspect of claim 10, that the Office has therefore not shown that the cited art teaches all aspects of claim 10, and that a *prima facie* case of obviousness has not been established. Accordingly, Applicants respectfully submit that claim 10 is not rendered unpatentable, and that claim 10 and any claims that depend therefrom are allowable over the cited art for at least this additional reason.

Based at least upon the above, Applicants respectfully submit that the Office has not shown that claim 10 is rendered unpatentable by the cited art, and that claim 10 is, in fact, allowable over the cited art for multiple reasons. Because claims 11-23 depend from allowable claim 10, Applicants respectfully submit that those claims are allowable over the cited art, as well.

With regard to independent claim 24, Applicants respectfully submit that claim 24 was rejected over the same art using the same rationale as claim 10, and that claim 24 is therefore allowable over the cited art for at least some of the reasons set forth above. Further, because claims 25-36 depend from allowable claim 24, Applicants respectfully submit that those claims are also allowable.

Accordingly, Applicants respectfully request that the rejections of claims 10-12, 15-16, 20, 24-25, 28-29, and 33 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

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V. The Proposed Combination Of Krishnamurthy, Adolph, And Bruck Does Not Render Claims 13 And 26 Unpatentable

Claims 13 and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Krishnamurthy and Adolph, in further view of Bruck (US 6,519,289). Applicants respectfully traverse the rejection. Claims 13 and 26 depend from claims 10 and 24, respectively. Applicants respectfully submit that claims 10 and 24 are allowable over the cited art, in that the Office has not demonstrated that Bruck overcomes the shortcomings of Krishnamurthy and Adolph set forth above. Applicants respectfully submit that, because claims 10 and 24 are allowable over the cited art, claims 13 and 26 that depend therefrom are also allowable, for at least the same reasons. Accordingly, Applicants respectfully request that the rejection of claims 13 and 26 over 35 U.S.C. §103(a) be reconsidered and withdrawn.

VI. The Proposed Combination Of Krishnamurthy, Adolph, And Hinchley Does Not Render Claims 14, 17-19, 27, And 30-32 Unpatentable

Claims 14, 17-19, 27, 30-32 were rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy and Adolph in view of Hinchley. Applicants respectfully submit that claims 14 and 17-19, and claims 27 and 30-32 depend, respectively, from independent claims 10 and 24. Applicants respectfully maintain that claims 10 and 24 are allowable over the proposed combination of references, in that Hinchley has not been shown to overcome the deficiencies of Krishnamurthy and Adolph set forth above. Because independent claims 10 and 24 are allowable over the proposed combination of Krishnamurthy, Adolph, and Hinchley, Applicants also respectfully submit that claims 14, 17-19, 27, and 30-32, that depend therefrom, are also allowable, for at least the same reasons.

Based at least upon the above, Applicants respectfully submit that the Office has failed to establish a *prima facie* case of obviousness, as required by M.P.E.P. §2142, and that claims 14, 17-19, 27, and 30-32 are allowable over Krishnamurthy, Adolph, and

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Hinchley. Accordingly, Applicants respectfully request that the rejections of claims 14, 17-19, 27, and 30-32 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

VII. The Proposed Combination Of Krishnamurthy, Adolph, And Boice Does Not Render Claims 21, 22, 34, And 35 Unpatentable

Claims 21-22 and 34-35 were rejected under 35 U.S.C. §103(a) as being unpatentable over Krishnamurthy, Adolph, and Boice. Applicants respectfully traverse the rejection. Applicants respectfully submit that the rejection lists claims 21-22 and 34-35 while the body of the rejection addresses claims 21-23 and 34-36.

Applicants respectfully submit that claims 21-22 (or 21-23) and 34-35 (or 34-36) depend, respectively, from independent claims 10 and 24. Applicants respectfully submit that claims 10 and 24 are allowable over the proposed combination of references, in that the Office has not shown that Boice overcomes the deficiencies of Krishnamurthy and Adolph set forth above. Because independent claims 10 and 24 are allowable over the proposed combination of Krishnamurthy, Adolph, and Boice, Applicants respectfully submit that claims 21-22 (or 21-23) and 34-35 (or 34-36) that depend therefrom are also allowable, for at least the same reasons.

Accordingly, Applicants respectfully request that the rejections of claims 21-22 (or 21-23) and 34-35 (or 34-36) under 35 U.S.C. §103(a) be reconsidered and withdrawn.

VIII. The Proposed Combination Of Krishnamurthy, Adolph, Boice, And Kopet Does Not Render Claims 21-22 And 34-35 Unpatentable

As an initial matter, Item 9 of the Office action (*See id.* page 13) rejects claims 21-22 and 34-35 over Krishnamurthy, Adolph, Boice, and Kopet. Applicants respectfully note that claims 21-22 and 34-35 were rejected in Item 8 of the instant Office action (*See id.* at pages 12-13) over Krishnamurthy, Adolph and Boice. The detailed discussion of the rejection, however, begins by addressing claim 23.

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Notwithstanding, Applicants respectfully submit that claims 21-22 (or 23) and 34-35 depends from independent claims 10 and 24, respectively. Applicants respectfully submit that claims 10 and 24 are allowable over the proposed combination of references, in that the Office has not shown how and why Kopet remedies the deficiencies of Krishnamurthy, Adolph, and Boice, set forth above. Because independent claims 10 and 24 are allowable over the proposed combination of references, Applicants respectfully submit that claims 21-22 (or 23) and 34-35 that depend therefrom are also allowable, for at least the same reasons. Accordingly, Applicants respectfully request that the rejection of claims 21-22 (or 23) and 34-35 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

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Conclusion

In general, the Office has made various statements regarding the claims in the Application and the cited references, which are now moot in light of the above. Thus, Applicants will not address such statements at the present time. However, Applicants expressly reserve the right to challenge such statements in the future should the need arise (e.g., if such statements should become relevant by appearing in a rejection of any current or future claim).

The Applicants believe that all of claims 10-36 define allowable subject matter, and request that the Application be passed to issue. Should the Examiner disagree or have any questions regarding this submission, Applicants respectfully invite the Examiner to telephone the undersigned at (312) 775-8000 to resolve any outstanding issues.

A Notice of Allowability is courteously solicited.

The Commissioner is hereby authorized to charge the fee required under 37 C.F.R. §1.17(a)(2) for the Petition, and any additional fees required by this submission, or to credit any overpayments, to the Deposit Account of McAndrews, Held & Malloy, Ltd., Account No. 13-0017.

Respectfully submitted,

Dated: October 10, 2010
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